



Urban District Council of Northwich.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

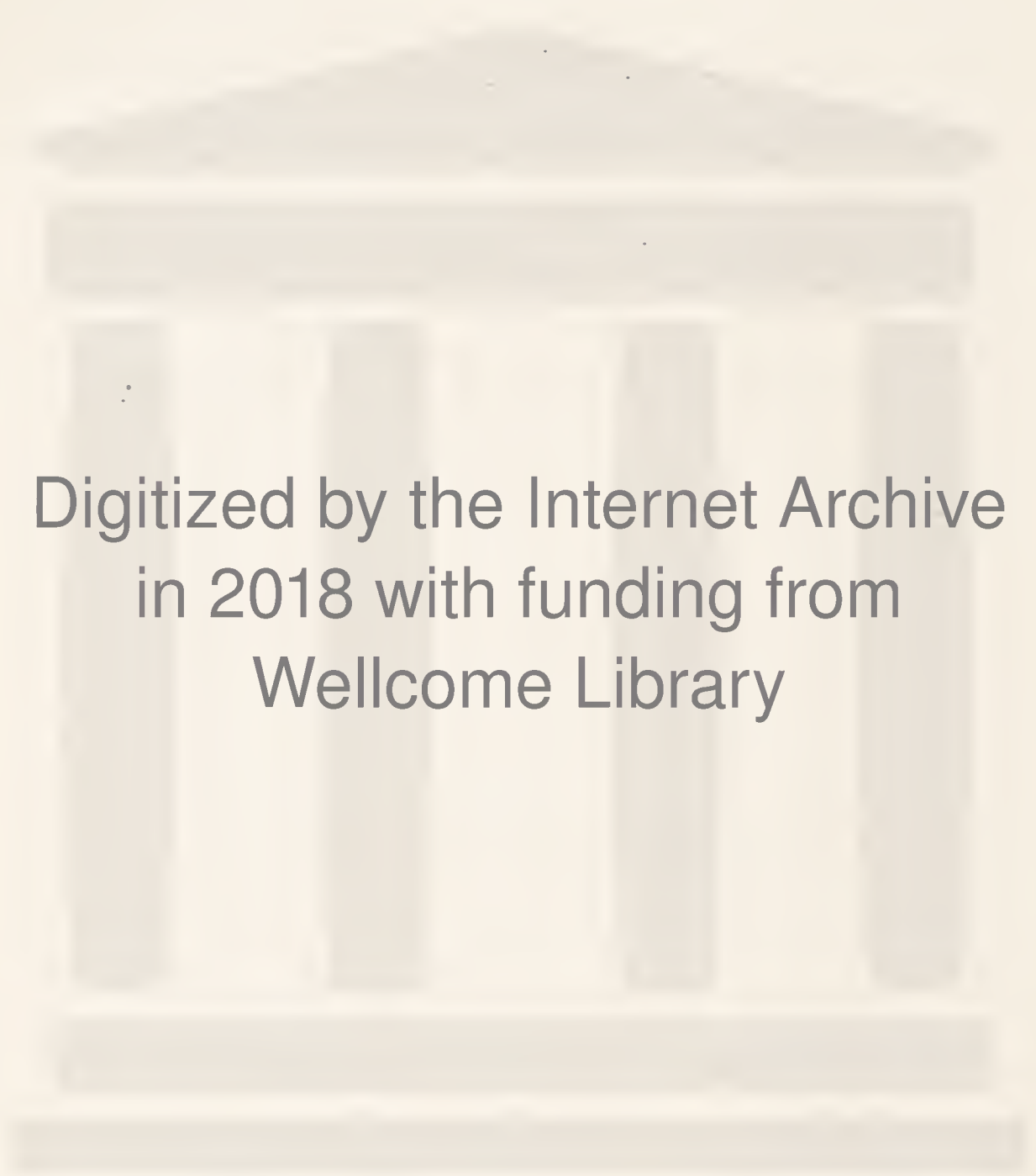
AND

Vital Statistics, &c.,

For the Year ending Dec. 31st, 1904.

NORTHWICH :

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NORTHWICH URBAN DISTRICT.

REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

For the Year ending December 31st, 1904.

Population at Census, 1901	..	..	..	..	..	..	17,608
„ Estimated to middle of 1904	..	..	..	..	..	..	18,500
Area in Acres	..	..	..	..	..	..	1,758
Birth Rate per 1,000 living	..	..	..	..	..	..	28·2
Death „ „ „ „	..	..	..	..	..	..	15·2
„ „ from seven principal Zymotic Diseases	..	..	..	..	..	..	1·3
Deaths under 1 year, to 1,000 Births	..	..	..	..	..	..	162

The Urban District and Township of Northwich now includes what were formerly the parishes of Witton-cum-Twambrooks, Northwich, and Castle Northwich, and parts of the parishes of Hartford, Leftwich and Winnington, and its population estimated to the middle of 1904, is 18,500; an increase of 280 over the population of 1903. The excess of births over deaths is 277. The birth rate is not quite double the death rate.

Births.—The total number of births registered is 522—286 being males, and 236 females; the rate per 1,000 is 28·2, which is 1·8 less than last year, and 6·1 less than the 10 years average. The number of illegitimate births is 29, which gives a rate of 1·5 per 1,000.

Deaths.—During the year the total number of deaths recorded was 283—19 being in the Union Workhouse, and 7 in the Victoria Infirmary. The rate per 1,000 is 15·2, which is practically the same as last year, and a decrease of 3·1 upon the 10 years average.

Children under one year accounted for 85 of these deaths, and 62 were persons over 65 years of age.

Zymotic diseases accounted for 42 deaths; 18 being from phthisis, 19 from other tubercular diseases, and 12 from cancer. Respiratory diseases were responsible for 41, giving a rate of 2'2 per 1,000 or one-seventh of the whole of the deaths. Diseases of the heart accounted for 23 deaths; premature birth for 15; alcoholism 3; venereal diseases 2; accidents 8; suicide 1; the remainder from various other causes. Inquests were held in 24 cases; 3 deaths from burns and scalds; 1 from drowning; 1 from manslaughter; 1 suicide; 4 from falls; the remainder being from natural causes.

Infantile Deaths.—The total number of deaths of children under 1 year is 85, which is 26 less than the 10 years average. The number of children who died before reaching 1 year was 162, out of every 1,000. Of these, 61 were under 6 months at the time of death, 9 were deaths of illegitimate children. The causes of these deaths were, as follows:—2 from measles; 2 whooping cough; 7 diarrhœa, and 3 enteritis; 7 tubercular diseases, other than phthisis; 15 premature birth; 1 venereal disease; 10 convulsions; 7 marasmus, and the remainder from various other causes. A glance at this list shows that the bulk of the diseases are of a preventible nature.

Deaths of Illegitimate Children.—There were 9 of these, and as there were 29 illegitimate children born, it shows how extremely precarious the life of an illegitimate child is. This apparently is a clear indication that a heavy infantile mortality is due to want of proper care. The causes of these deaths were, as follows:—3 from pneumonia; 2 from convulsions; 2 intestinal catarrh; 1 measles, and 1 kidney disease. Three of the mothers were described as being of no occupation, and the remainder domestic servants. Five of the children were under 6 months at the time of death.

Zymotic Deaths.—The number of deaths from the 7 principal Zymotic diseases is 27, in addition to which were 11 from diarrhœa; 3 enteritis; 1 puerperal fever, and 2 influenza. The Zymotic death rate is 1'3 per 1,000; 18 of these were from measles; 2 from whooping cough; 3 diphtheria, and 2 typhoid fever.

Zymotic Diseases.—There were 74 cases of infectious disease notified during the year. Of these, 3 were smallpox; 25 diphtheria; 21 erysipelas; 15 scarlet fever; 6 typhoid fever, and 4 puerperal fever. Nine of these cases being removed to hospital.

Smallpox.—Three cases of this disease occurred: One being a tramp who came to the workhouse and was removed to the Rural Council's Isolation Hospital at Marbury; one occurred in a common

lodging-house, and one in a private dwelling-house. These were immediately removed to hospital, and all possible precautions were taken to prevent the spread of the disease with a successful result in each case.

Diphtheria.—Twenty-five cases of this disease have been notified during the year, few of which were pathologically confirmed. The cases were mostly of a mild type. Three fatalities were registered.

Factories and Workshops.—Systematic inspection has been made of all the factories on the register which number about 121. The defects which have been found and remedied consist of want of cleanliness, want of ventilation, overcrowding, and want of drainage. No prosecutions have been necessary.

Private Streets.—A number of streets will be paved within the year under the Private Streets Act. These are mostly in the Castle Ward, and become eligible for paving owing to the completion of the Castle Sewerage Scheme which allows for free drainage.

The paving of streets and back passages is a measure which has a very distinct effect for amelioration upon the health of a locality. Tonsillitis, rheumatism, catarrh, and respiratory diseases, all being worse in a damp atmosphere. The damp and dirty ground is very suitable for breeding the germs of putrefaction and disease, notably diphtheria, and it is to be hoped that all these small streets and back passages will soon be paved and channeled.

The general work of the year has been so comprehensively set forth in the excellent report of the Inspector which is at the end of the book, that further remarks are unnecessary.

HENRY EDWARD GOUGH,

Medical Officer of Health.

Feb. 2nd, 1905.

TABLE I.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		* DEATHS AT ALL AGES. TOTAL.		Deaths in Public Institutions.	Deaths of Non-residents registered in District.	Deaths of Residents reg- istered beyond District.	DEATHS AT ALL AGES. NETT.	
		Number	Rate.*	Number	Rate per 1,000 Births regis- tered.	Number	Rate.*				Number	Rate.*
I		3	4	5	6	7	8	9	10	11	12	13
1894	17,000	650	38·5	116	178	231	13·5	16	...	...	...	12·8
1895	17,400	697	40·0	138	198	385	22·1	39	14	...	371	21·3
1896	17,800	685	38·1	117	170	327	18·2	32	15	2	314	17·6
1897	18,100	718	39·1	133	182	368	20·2	29	14	...	354	19·5
1898	18,300	650	35·5	124	187	380	20·2	49	22	1	359	19·6
1899	18,500	531	28·6	115	214	372	20·1	45	16	1	357	19·2
1900	18,820	593	31·5	92	155	308	16·3	35	11	1	298	15·8
1901	17,681	560	31·6	128	228	387	21·8	45	34	11	364	20·5
1902	17,950	546	30·4	71	130	270	15·0	42	15	...	285	15·8
1903	18,220	548	30·0	82	149	293	16·1	29	18	1	276	15·1
Averages for years 1894-1903.	17,977	617	34·3	111	179	337	18·3	36	...	...	...	...
1904	18,500	522	28·2	85	162	283	15·2	26	16	3	296	16·0

*Rates in column 4, 8 and 13, calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) 1,758.

Total population at all ages, 17,608.

Number of inhabited houses, 3,565.

Average number of persons per house, 4·9.

At Census
of
1901.

Institutions within the District receiving
sick and infirm persons from
outside the District

Victoria Infirmary, Northwich.
Union Workhouse, Northwich.

Institutions outside the District receiving
sick and infirm persons from
the District

Royal Infirmary, Manchester.
The Chester County Asylum.
The Rural District Council's
Infectious Hospital, at Mar-
bury.

TABLE III.
Cases of Infectious Disease notified during the Year 1904.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.						TOTAL CASES NOTIFIED IN EACH LOCALITY.						NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.							
	At all Ages.	AT AGES—YEARS.					I	2	3	4	5	6	I	NORTHWICH URBAN DISTRICT.	3	4	5	6	7	
		Under I.	I to 5.	5 to 15.	15 to 25.	25 to 65.														65 and upwards.
Small-pox	3	...	...	...	...	3	...	...	...	...	...	...	...	2	1*	...	...	...	...	...
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	25	1	8	14	1	1	...	...	...	...	...	...	...	1	...	...	...	...	...	...
Membranous croup .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	21	...	...	2	2	17	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Scarlet fever.....	15	...	8	5	1	1	...	...	...	...	...	...	...	2	...	...	...	...	...	...
Typhus fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	6	...	...	2	3	1	...	...	...	...	...	...	...	3	...	...	...	...	...	...
Relapsing fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever	4	...	...	...	1	3	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	74	1	16	23	8	26	...	...	...	...	...	...	...	8	1*	...	...	...	...	...

Isolation Hospital, Wade Brook, and *Rural District Councils' Hospital at Marbury.

TABLE IV.

Causes of, and Ages at, Death during the Year 1904.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN LOCALITIES (AT ALL AGES).						DEATHS IN PUBLIC INSTITUTIONS.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.							
Small-pox .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Measles	18	2	16	..	..	..	..	17	1	..	..	..	..	1
Scarlet fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping-cough	2	2	..	..	..	..	..	2	..	..	..	..	..	..
Diphtheria and mem- branous croup	3	..	1	2	..	..	..	3	..	..	..	..	..	..
Croup .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Fever { Typhus .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Enteric	2	..	..	..	2	..	..	2	..	..	..	..	..	..
{ Other continued.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	2	..	..	..	..	1	1	2	..	..	..	..	..	..
Cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa.....	11	7	3	..	..	..	1	11	..	..	..	..	..	..
Enteritis	3	3	..	..	..	..	..	3	..	..	..	..	..	..
Puerperal fever	1	..	..	..	1	..	..	1	..	..	..	..	..	..
Erysipelas .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other septic diseases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	18	..	1	..	4	13	..	14	4	..	..	..	..	4
Other tubercular diseases..	19	7	6	4	..	2	..	16	2	1	..	..	..	3
Cancer, malignant disease.	12	..	..	..	..	9	3	11	..	1	..	..	..	1
Bronchitis	19	4	1	..	..	5	9	17	2	..	..	..	..	2
Pneumonia	21	10	5	1	..	4	1	21	..	..	..	..	..	..
Pleurisy .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other diseases of respira- tory organs	1	..	..	..	..	..	1	1	..	..	..	..	..	..
Alcoholism—Cirrhosis of liver	3	..	..	..	..	3	..	2	1	..	..	..	..	1
Venereal diseases	2	1	..	..	..	1	..	1	1	..	..	..	..	1
Premature birth.....	15	15	..	..	..	..	..	15	..	..	..	..	..	..
Diseases and accidents of Parturition	1	..	..	..	..	1	..	1	..	..	..	..	..	..
Heart diseases	23	..	..	1	1	13	8	23	..	..	..	..	..	..
Accidents.....	8	..	2	1	..	3	2	4	1	3	..	..	..	4
Suicides	1	..	..	..	..	1	..	1	..	..	..	..	..	..
Old Age	19	..	..	..	..	..	19	15	4	..	..	..	..	4
Convulsions	12	10	2	..	..	..	..	12	..	..	..	..	..	..
Marasmus	8	7	1	..	..	..	..	8	..	..	..	..	..	..
All other causes	59	17	..	1	..	24	17	54	3	2	..	..	..	5
All causes	283	85	38	10	8	80	62	257	19	7	..	..	..	26

SUPPLEMENTARY TABLE I.—BIRTHS, 1904.

	Males.	Females.	Totals for Quarters.	Rate per Thousand.	No. of Illegitimate Births.
1st Quarter	76	53	129	27·8	5—3 M., 2 F.
2nd „	83	65	148	31·8	6—5 M., 1 F.
3rd „	60	56	116	25·8	8—3 M., 5 F.
4th „	67	62	129	27·8	10—5 M., 5 F.
For whole year	286	236	522	28·2	29—16 M., 13 F. Rate=1·56.

SUPPLEMENTARY TABLE II.—DEATHS, 1904.

	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Totals for Year.	Rate.
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.	No.	Per 1000
Northwich	63	..	53	..	61	..	80	..	257	..
Workhouse	7	..	4	..	5	..	3	..	19	..
Infirmary .....	..	..	6	..	1	..	..	..	7	..
Whole District	70	15·1	63	13·6	67	13·9	83	17·0	283	15·2

SUPPLEMENTARY TABLE III.—INFANTILE DEATHS.

Shewing Numbers in each District during each Month and Quarter,
with the Death Rates for each District and each Quarter.

		1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter			Whole Year.	
		January	February	March	April	May	June	July	August	September	October	November	December	No.	Rate per 1000 Births registered.
Whole District	No.	2	10	5	14	8	2	13	9	1	7	4	10	85	162
	Rate per 1000 Living	—			—			—			—			4.5	—
Number under 6 months of age at time of death.		13			17			14			17			61	—
Illegit- imate Deaths		—			3			2			4			9	—

Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries).	118	All Notices have been given verbally.	..
Workshops (Including Workshop Laundries).			..
Workplaces	2		..
Homeworkers' Premises	1		..
Total	121	..	..

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :*</i>				
Want of cleanliness	I	I	..	..
Want of ventilation	4	4	..	..
Overcrowding	I	I	..	..
Want of drainage of floors	I	I	..	..
Other nuisances .. .. .	..	..	..	..
†Sanitary Accommodations {	insufficient .. .. .	..	..	..
	unsuitable or defective ..	..	..	..
	not separate for sexes ..	..	..	..
<i>Offences under the Factory and Workshop Act :</i>				
Illegal occupation of underground bake-house (S. 101) .. .. .	..	..	..	..
Breach of special sanitary requirements for bakehouses (SS. 97 to 100). ..	..	..	..	..
Failure as regard lists of outworkers (S. 107)	..	..	..	..
Giving out work to { be done in premises {	unwholesome (S. 101)	..	..	..
	infected (S. 110) ..	..	..	..
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (S. 109) .. .. .	..	..	..	..
Other offences .. .. .	..	..	..	..
Total	7	7	..	..

Class.										Number.	
Matters notified to H.M. Inspector of Factories :											
Failure to affix Abstract of the Factory and Workshops Act (S. 133) .. .. .										....
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) {										Notified by H.M. Inspector .. 3	
										Reports (of action taken) sent to H.M. Inspectors	
Other .. .. .										....
Underground Bakehouses (S. 101) :											
In use during 1903											
Certificates granted { in 1903 .. .. .										....
										{ in 1904	
In use at the end of 1904 .. .. .										...
										Number of	
Homework :											
<i>Lists of Outworkers*</i> (S. 107) :										Lists.	Out-workers.
Lists received .. .. .										..	3
Addresses of Outworkers { forwarded to other Authorities ..										....
										{ received from other Authorities ..	
										Wearing Apparel.	Other.
<i>Homework in unwholesome or infected premises :</i>										..	..
Notices prohibiting homework in unwholesome premises (S. 108)										..	..
Cases of Infectious disease notified in homeworkers' premises..										..	..
Orders prohibiting homework in infected premises (S. 110) ..										..	..
Workshops on the Register (S. 131) at the end of 1904 :											
Important classes of workshops, such as workshop bakehouses, may be enumerated here. { .. .. .										....
Total number of workshops on Register										121	

SANITARY INSPECTOR'S OFFICE,

NORTHWICH DISTRICT COUNCIL,

4th January, 1905.

ANNUAL REPORT.

GENTLEMEN,

In presenting my Report for the year 1904, I am sorry I cannot repeat the opening statements of my last Two Annual Reports, and record a clean bill of health, but I am pleased to say the infection in the district is very slight, and is fast dying out, so that I hope in a week or two the town will be quite free.

The past year has been a very trying one for sanitation in general, the long dry summer with the hot weather we experienced caused a great deal of putrefaction wherever any substance was allowed to accumulate, with the result decomposition and fermentation set in with all the evils attached thereto, causing a great deal of sickness and sore throats. I am sorry that this class of danger is not better known than it is at present by all classes. The refuse from the kitchen and scullery should be destroyed by fire, and not put in the ashpits or ashbins to be allowed to decompose and throw off its most dangerous odour.

The scavenging has improved very much during the past year. Each contractor having taken greater interest in his work. The work is carried out with much more promptitude, and with far less friction than in previous years. Another improvement is the system of removing the dry refuse from boxes, &c. in the main streets, the ashes are now carried in hampers direct to the cart, without being deposited in the road. Disinfectants are freely used by the contractors for the removal of house refuse, as it is highly important that each ash box or bin should be thoroughly disinfected.

A destructor would, in my opinion, be a very desirable addition to the sanitary reform of the district, and would provide a means of disposal for the trade refuse from shops which the Council do not undertake at the present. I should like to draw the Council's attention to the practice adopted by some tradesmen brushing their shop sweepings into the streets.

The Scavengers have received 261 notices for the removal of house refuse, this compares well with previous years, as the average number is about 600. They have removed during the year 3,820 loads of dry refuse, and 3,500 loads excreta. The disposal of the excreta is a serious question, and should have the consideration of the Council at an early date with the view of doing away with some of the old cesspools in the Castle and Winnington Districts, and substituting the water carriage system, this would greatly reduce the expense of scavenging, but above all would greatly improve sanitation in these districts.

During the year I have supplied property owners with 185 of the Council's standard pails, seven of these were renewals, and the others have gone to replace old and leaky ones, a few having taken the place of old and defective cesspools which have been filled up and done away with.

Eighty-seven legal notices have been served on property owners to abate nuisances and to execute repairs. These have all been complied with and the work carried out.

Thirty-three letters have been written, asking for the reconstruction of defective and insanitary property.

Twenty-four old privies have been converted into the water carriage system, and the old cesspools filled up and done away with. This is a good increase in this class of work, and a great improvement to the neighbourhood where they are adopted. The ashpits in connection with the above privies have been reconstructed and covered in.

There has been 10 new water closets built in connection with new property, which is a step in the right direction.

Twenty-seven privies have been converted into the pail system, which reduces the number of these dangerous cesspools, and does away with some of the hatching ground of some of the most active and dangerous microbes known.

Thirty-five cesspools have been reconstructed and covered in, also the ashpits in connection with them have been covered and spouted, carrying all the rain water away from the said cesspools.

Ten privies and ten ashpits have been pulled down and reconstructed at the instigation of the Medical Officer of Health and Inspector, the ashpits being covered in and the cesspools remodelled.

Fifty-two lengths of house drains have been taken up and relaid at the request of the Sanitary Inspector, many of these had to be retrapped as the traps were found defective; also ventilators were fixed where none existed before. This is a large increase in this kind of work.

Seventeen cases of filthy premises have been dealt with, and the premises cleansed and disinfected. This is again an increase in the number of these cases, but they have been cleansed without an appeal to the magistrates.

Overcrowding shows a decrease this year, there being only 13 cases reported, these have also been abated without recourse to prosecution.

I called on the owners of three manure pits to have the accumulations removed, and this was done, one of these places was remodelled and made watertight.

Five new washhouses have been constructed where none existed before. This is a great blessing to some of the small two-roomed houses where there is no place to do any washing. This in my opinion should be encouraged as much as possible.

Eight times was black smoke reported, and the defaulters written to by order of the Council, legal notices being served in three cases.

Twenty-nine new houses have been built during the year. Eighteen houses have been pulled down through subsidence and other causes, leaving a net increase of 11 houses. The new houses are of far more rateable value than the old ones.

Systematic inspection of the district show 3,862 houses, 3,388 closets, 555 cesspools, 1,876 pails, 1,062 water closets, 1,260 ashpits, 896 ashbins, and 3,059 water taps. This table shows good progress over the last five years in the matter of sanitary improvements. The last table showed 3,851 houses, 3,377 closets, 584 cesspools, 1,904 pails, 1,008 water closets, 1,278 ashpits, 884 ashbins, and 3,220 water taps. I am sorry to see some of the new houses in the Castle district being constructed on the pail system, when water closets could be so easily put in at so little cost.

I have received 74 notifications of infectious disease during the year, as follows:—Diphtheria 25, scarlatina 15, erysipelas 21, puerperal 4, typhoid 6, and smallpox 3. Eight of these have been treated in the Wade Brook Hospital at a total cost of £174 17s. 9d., or £21 17s. 6d. per head.

Three times has smallpox been brought into the town :—First in Workhouse, then in a private house, and next in one of the lodging-houses. Each time the patient was removed without delay, the bedding and clothes destroyed, the houses thoroughly cleansed and disinfected, and all contacts re-vaccinated.

There has been no alteration in the hospital during the year.

The dairies, cowsheds and milkshops has been visited periodically during the year, they were all found in good order and very clean.

There are 18 slaughter houses in the Council's district which have been visited several times during the year, and found in good order.

There are 7 lodging houses in the district, one was reported for the filthy state of the bedding, but on a notice being served clean bedding was substituted, and the house cleaned to the satisfaction of the Sanitary Inspector. A case of smallpox was found in another, the bedding was destroyed and the whole house was cleansed and disinfected and limewashed. The other lodging houses were all found in good order.

Canal Boats.—As the Clerk has not received an answer from the Local Government Board as to his application for extended power to inspect boats registered under the Merchants' Shipping Act, and there are only two boats plying within the Council's district registered by Local authorities, my visits are very few, as I have no power to inspect boats registered under the Merchants' Shipping Act.

Factories and Workshops.—There are about 170 on the register, these have caused a large amount of work during the year, as I have had to visit them many times, and warn a few of them for infringing the Factory Act. One for overcrowding, another for want of ventilation, and four for closing the ventilators, the latter practice is a very common infringement, and has to be watched very closely. I had all bakehouses and sweet factories and workrooms lime-washed twice during the year, the drain in connection with one was found to be out of order, and was taken up, cleaned and relaid with proper traps and ventilators attached. I have taken off the names of some that have left the town, and have added others that have taken their place. There are very few out-workers in the district, but in each case I have paid visits to the houses.

CHAS. POTTS,

Sanitary Inspector.

1904.

Northwich Rural District Council.

ANNUAL REPORT

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MEDICAL OFFICER OF HEALTH,

AND

Vital Statistics, &c.,

For the Year ending Dec. 31st, 1904.

NORTHWICH :

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NORTHWICH RURAL DISTRICT.

ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

FOR THE YEAR 1904.

Population at Census, 1901	..	..	..	..	..	..	20,923
„ Estimated to middle of 1904	..	..	..	..	..	..	23,175
Area in Acres	..	..	..	..	..	..	54,301
Birth Rate per 1,000 living	..	..	..	..	..	..	25·3
Death „ „ „ „	..	..	..	..	..	..	13·5
„ „ from seven principal Zymotic Diseases	..	..	..	..	..	..	1·5
Deaths under 1 year, to 1.000 Births	..	..	..	..	..	..	103

During 1904, the excess of births over deaths was 345 throughout the whole district, which for registration purposes has been subdivided into 4 Sub-districts.

1. WEAVERHAM, having an area of 18,000 acres, includes Acton, Barnton, Crowton, Cuddington, Delamere, Eddisbury, Hartford, Little Leigh, Oakmere, and Weaverham.
2. NORTHWICH, having an area of 10,891 acres, includes Allstock, Anderton, Cogshall, Comberbach, Leftwich, Lostock Gralam, Marbury, Marston, Nether Peover, Wincham, and Winnington.
3. OVER, having an area of 12,472 acres, includes Clive, Darnhall, Eaton, Little Budworth, Marton, Moulton, and Wimboldsley.
4. MIDDLEWICH, having an area of 12,938 acres, includes Bostock, Byley, Davenham, Kinderton, Lach Dennis, Rudheath, Stanthorne, Sproston, and Whatcroft.

The population for the Rural District was estimated to be 23,175 in the middle of the year, which is distributed amongst the four districts, as follows :

Weaverham	...	9,060	} 23,175.
Northwich	...	8,010	
Over	...	2,940	
Middlewich	...	3,165	

Births.—The total number of births registered during the year is 588, which is a decrease upon last year of 37. The rate per 1,000 is 25·3, which is a decrease of 2·2 upon last year's rate, and a decrease of 4·7 upon the average for the last ten years.

Of these Births 281 were males, and 307 females, while 18 were births of illegitimate children. Table II shows the number of births in each locality, with the comparisons for the last 10 years; and Supplementary Table I shows the number of each sex in each locality for each quarter, and the rate per 1,000.

Deaths.—The total number of deaths registered in the whole district during the year is 313, which is an increase upon last year of 53. The rate per 1,000 being 13·5, while the 10 years' average is 14.

The birth rate of 1904 is nearly double the death rate.

Of these deaths 137 occurred in Weaverham, 95 in Northwich, 39 in Over, and 42 in Middlewich.

The number of deaths occurring in public institutions is 8—3 being in the Infectious Diseases Hospital at Marbury, the remainder in the Union Workhouse, and the Victoria Infirmary.

Of these 313 deaths, 61 were infants under one year of age, and 98 were persons over 65 years of age, 36 of the latter being from old age, and 41 of the former being under 6 months of age at the time of death.

Twenty-six inquests were held, 3 deaths being suicide (2 drowning and 1 hanging) 4 from falls, 6 accidental drowning, 3 from inattention at birth (2 found dead in bed, and 1 from overlying) the remainder from various diseases: 7 were infants under 1 year, 2 were persons not belonging to the district.

Zymotic diseases caused 36 deaths: Phthisis 11, and tubercular diseases other than phthisis 7; cancer 12; diseases of the lungs 42; diseases of the heart 37; accidents 15; premature births 12; alcoholism 2; the remainder being from various other causes.

Infantile Mortality.—The total number of deaths of infants under 1 year of age is 61, which is 31 less than the 10 years' average. Of these deaths, 20 were in Weaverham, 24 in Northwich, 10 in Over, and 7 in Middlewich. Seventeen occurred during the first quarter, 14 during the second, 9 during the third, and 21 during the last.

The rate per 1,000 of living persons is 2·6, and the rate to 1,000 births is 103, which is to say that out of every 1,000 children born 103 die before they reach 12 months of age, or to express it differently, out of all the deaths in the district 33% are infants under

1 year, which is 10% less than during last year. Of these deaths 41 were under 6 months of age, and 2 of them were illegitimate children.

The causes of these deaths were : Smallpox 1, measles 8, whooping cough 2, diarrhœa 2, tuberculosis 1, diseases of the lungs 10, premature births 12, convulsions 6, marasmus 4, accidents 2, and venereal disease 1.

The causes of the two illegitimate deaths were bronchitis and inattention at birth, the mother of one being described as a dress-maker, and the other as of no occupation.

Supplementary Table III shows the number of deaths in each district for each month and quarter, and the rates.

Zymotic Deaths.—The total number of these is 36 ; 2 being from smallpox, 19 from measles, 2 from whooping cough, 2 from diphtheria, 1 from croup, 5 from typhoid fever, 1 from influenza, and 4 from diarrhœa.

The Zymotic death rate is 1·5 per 1,000, being calculated upon the 7 principal Zymotic diseases only, 3 of these deaths occurred in the Isolation Hospital at Marbury.

Zymotic Diseases.—The total number of these occurring in the district is 187 ; of these 12 were smallpox, 47 diphtheria, 1 croup, 22 erysipelas, 87 scarlet fever, 12 typhoid fever, and 6 puerperal fever.

By far the largest proportion of these diseases was notified in the Weaverham Sub-district, viz., 136 ; 17 only being in Northwich, 19 in Over, and 15 in Middlewich. The Townships of Weaverham and Barnton contributing a large proportion.

The following cases were removed to Hospital : 12 smallpox, 13 diphtheria, and 23 scarlet fever, all but 6 were from Weaverham district.

Smallpox.—Twelve cases of this disease occurred, all of them during the last quarter. The first case notified was a woman aged 67, living in Hartford, who unquestionably contracted the disease at Urmston, near Manchester, and sickened a few days after coming home to Hartford. This case had no connection with the others. The next outbreak occurred in Little Leigh, on the extreme boundary of the district, 3 persons in one cottage being notified simultaneously. They were at once removed to Hospital, having evidently contracted the disease from relatives living a mile or two away in the Runcorn Rural District. The next outbreak occurred some six weeks later, in the adjoining village of Barnton, by the almost simultaneous notification of 7 cases, all relations. They

were at once removed to Hospital. The last of these cases was removed to Hospital on December 11th, and on December 29th, another case occurred in Barnton. The connection between the first batch of cases in Barnton and those at Little Leigh was clear. The source of infection in the last case was at first obscure; but careful inquiry elicited the fact that the patient's husband had suffered from an illness which was evidently a slight modified attack of smallpox. He had been in the company of a man convalescent from the disease (who was only discovered when his wife and two children were taken ill) and had a vaccination scar on his arm about the size of a penny. His wife contracted a severe attack of confluent smallpox which proved fatal. All these cases were removed to hospital, and also three uninfected children (whose father, mother, and two sisters were also taken) for the sake of quarantine. Bedding, clothing, etc. being disinfected or burnt, re-vaccination of contacts was also carried out with great promptitude, and it speaks well for the decision, energy, and care displayed by all the sanitary staff that an outbreak so extensive was cut short at once, for no further case occurred.

Of these 12 cases, 3 proved fatal, and the influence of vaccination is remarkably instructive. The first fatal case was a woman of 67 who had not been vaccinated since infancy, and whose arm showed little trace of any scars. The second death was that of an infant, two months old, who had never been vaccinated. The last death was that of a woman aged 35, who said that she had been vaccinated in infancy but "it did not take." Her arm did not show any vaccination scars. All these cases were of the confluent type, and one patient almost certainly contracted the disease from a case so mild as to be unsuspected. The other cases were not of a severe type, and an infant of four months, who had recently been vaccinated and whose arm showed only one good scar, had a very slight attack indeed, in marked contrast to the infant which having never been vaccinated developed so severe an attack that it died on the fifth day of the disease.

Diphtheria.—Forty-seven cases of this disease occurred during the year: 28 in Weaverham, 9 in Northwich, 1 in Over, and 9 in Middlewich. No less than 25 were notified from the parish of Barnton. The bulk of the cases were of a very mild type; there were only two fatalities during the whole year; 13 cases were removed to hospital, and about 10 or 12 pathologically confirmed.

Scarlet Fever.—Eighty-seven cases of this disease were notified during the year: 70 of them being in Weaverham, 4 in Northwich, 13 in Over, none in Middlewich. Twenty-three were removed to hospital. The epidemic visited chiefly the townships

of Weaverham, Barnton, and Little Leigh. The cases were mostly of a very slight character. Not a single fatality occurred.

During April, the Little Leigh Schools were closed for a period of 8 weeks, with a very marked influence in checking the spread of the disease.

Typhoid Fever.—Twelve cases of this disease have occurred during the year: 11 being in Weaverham, and 1 in Middlewich. Seven of these cases occurred in the village of Weaverham. This outbreak was caused by the contamination of milk at a small holding. The premises were in a most insanitary condition, and the farmer himself contracted the disease; he evidently was the source of the infection, and 5 persons to whom milk was supplied in neighbouring cottages became infected. The sale of milk was stopped; the well which supplied all their water was condemned, with the result that no further cases occurred. The farmer himself, his daughter, and another young woman died. The premises were not registered as a dairy farm, and the circumstances of this outbreak illustrated the necessity for all dairy farms to be registered, and the Rural District Council have petitioned the Local Government Board to eliminate the clause from their orders, which permits the small holders from supplying neighbours with milk without being registered.

Measles.—During the latter half of the year a very extensive epidemic spread in a wave over practically the whole district, with the exception of the townships of Barnton, Little Leigh, and Acton. Closure of Schools was enforced in most of the villages for periods varying from 3 to 5 weeks, with a beneficial effect upon the spread of it.

Whooping Cough.—This disease has not been so prevalent as during last year, only two deaths having been registered. These were both in the Northwich district.

Isolation Hospital.—The number of patients in this hospital at the commencement of the year was 4. Forty-nine fresh cases were admitted during the year, 1 of these being from the Northwich Urban District, and 3 children were also admitted for quarantine. Twelve cases remained in the hospital at the end of the year, all of them smallpox, 41 were discharged cured, and 3 died (1 of these being diphtheria and 2 smallpox).

Of the 48 cases removed from this Rural District, 23 were scarlet fever; 2 being from Moulton, 3 from Hartford, 2 from Weaverham, 9 from Barnton, 2 from Acton, and 5 from Little Leigh; 13 were diphtheria, Barnton contributing 9; Comberbach, Whatcroft, Winnington and Wincham, each 1: 12 were smallpox, Hartford

contributing 1; Little Leigh 3, and Barnton 8. In addition to these, there was 1 case admitted from the workhouse in the Northwich Urban District, and 3 children were quarantined from Barnton. The hospital buildings have been maintained in thorough order.

The Joint Isolation Hospital for Northwich, Winsford, and Middlewich Urban and Northwich Rural Districts is progressing rapidly; the foundation stone was laid by Major Wilbraham, the Chairman of the Committee, on the 26th October, and there is reasonable expectation that the Hospital will be ready for occupation within one year from that date.

Dairies.—One new dairy has been registered during the year, making the total number in the districts 403. Transfers to new tenants have been made in 7 instances, the standing committees have inspected 13 farms, and the regulations strictly enforced.

Dwelling-houses.—Plans for 56 new houses and four other buildings have been approved; the total number of houses in the district being 4,507. Thirty-one new houses have been certified fit for occupation during the year. The Medical Officer of Health has condemned 16 houses as unfit for habitation, namely: Delamere 1; Crowton 8; Allostock 2; Rudheath 3; Weaverham 2. Of these, 10 have been restored, 4 demolished, and 2 are being dealt with.

Water Supplies.—The public water supplies in 23 townships have been maintained in a state of constant efficiency, and the services extended as occasion required.

An additional supply has been secured for Barnton, a township which is increasing rapidly in size. Borings for water are now in progress at Wimboldsley, a township in which a need for public service is great. Seven samples of water have been submitted to the County Analyst for analysis, 4 of these are certified good—2 bad, being new wells for new houses not accepted, and other water provided; 1 certified as suspicious and done away with, and 1 in which typhoid contamination was strongly suspected was submitted to Professor Delepine, of the Victoria University for bacteriological examination. The report furnished conclusive evidence of fæcal contamination, and the well was closed.

Factories and Workshops.—The number on the register remains the same as last year, 14 being bakehouses. They consist largely of the village shoemaker, dressmaker, and baker, and the country wheelwright and blacksmith. 105 inspections have been made, 19 defects having been found, all of which have been remedied. Those defects consisted in want of cleanliness, ventilation, and drainage, and insufficient or defective sanitary accommodation. No prosecutions were necessary.

The Table in the Appendix gives the particulars.

Sewerage and Scavenging.—All sewerage works in the district have been maintained in effective operation. At Lostock Gralam, considerable improvements have been made during the year, and plans for new outfall works for Barnton are now before the Local Government Board; both these villages have increased considerably during the last two years. The villages of Lostock Gralam, Wincham, Anderton, Weaverham, Barnton, Davenham, Marston, Leftwich, and Moulton, are scavenged by the Council's contractors weekly.

Statutory notices for the abatement of nuisances at 16 houses have been issued and complied with, but it must be noted that on the larger estates in the district it is only necessary to bring the fact of nuisance under the notice of the estate office to insure its abatement, and the extent of the method of procedure will be known by the 1,362 letters having exclusive reference to sanitary work that has been sent out from the Inspector's Office during the year.

There 20 slaughter houses upon the register. They have been inspected and kept clean and limewashed. Several of them are not now used.

There have been 52 canal boats inspected during the year, and infringements of the regulations have been found in 22 instances which all have been remedied.

HENRY EDWARD GOUGH,

Medical Officer of Health.

Jan. 23rd, 1905.

TABLE I.

YEAR.	Population estimated to Middle of each Year.	BIRTHS.		DEATHS UNDER ONE YEAR OF AGE.		* DEATHS AT ALL AGES. TOTAL.		Deaths in Public Institutions.	Deaths of Non-residents registered in District.	Deaths of Residents reg- istered beyond District.	DEATHS AT ALL AGES. NETT.	
		Number	Rate.*	Number	Rate per 1,000 Births regis- tered.	Number	Rate.*				Number	Rate.*
1	2	3	4	5	6	7	8	9	10	11	12	13
1894	20,789	763	28'2	106	139	345	13'0	...	...	...	...	...
1895	22,747	772	33'9	107	138	383	16'8	...	...	...	...	...
1896	22,501	834	37'0	105	126	342	15'4	...	6	...	336	14'9
1897	22,768	781	34'3	111	144	370	16'6	...	10	2	362	15'8
1898	22,568	686	30'4	106	154	345	15'8	...	14	2	333	14'7
1899	22,826	612	26'8	88	143	329	14'8	...	12	2	319	13'9
1900	23,500	636	27'0	69	108	299	12'7	...	3	6	302	12'8
1901	22,174	620	27'9	89	143	287	12'8	2	...	5	292	13'1
1902	22,280	603	27'6	72	119	276	12'3	...	...	6	282	12'6
1903	22,650	625	27'5	68	108	247	10'4	4	...	13	260	11'4
Averages for years 1894-1903.	22,480	693	30'0	92	132	322	14'0	...	...	...	...	...
1904	23,175	588	25'3	61	103	313	13'5	8	3	5	315	13.5

*Rates in column 4, 8 and 13, calculated per 1,000 of estimated population.

Area of District in acres (exclusive of area covered by water) 54,301.

Total population at all ages, 20,923.
Number of inhabited houses, 4,485.
Average number of persons per house, 4'6.

} At Census
of
1901.

Institutions within the District receiving
sick and infirm persons from
outside the District

Institutions outside the District receiving
sick and infirm persons from
the District

} Infectious Hospital at Marbury

Union Workhouse, Northwich.
Victoria Infirmary, Northwich.
Royal Infirmary, Manchester.
Albert Infirmary, Winsford

TABLE II.

NAMES OF LOCALITIES.	WEAVERHAM.					NORTHWICH.					OVER.				MIDDLEWICH.			
	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under one Year.	a.	b.	c.	d.	Population esti- mated to middle of each Year.	Births Registered.	Deaths at all Ages.	Deaths under one Year.	a.	b.	c.	Deaths at all Ages.	Births Registered.	Deaths under one Year.
YEAR.																		
1894 ...	8058	269	127	35	7069	320	139	49	3083	74	39	10	2579	100	37	10		
1895 ...	8613	284	163	40	8352	292	143	48	3083	99	40	11	2699	97	37	8		
1896 ...	8561	299	137	44	8092	363	126	38	3089	88	46	15	2759	83	39	8		
1897 ...	8671	295	143	28	8174	303	155	57	3133	92	45	14	2810	91	35	15		
1898 ...	8944	252	135	31	7741	282	139	47	2991	76	45	16	2893	76	38	2		
1899 ...	8940	248	120	28	7835	226	130	40	3003	80	45	13	3048	58	34	7		
1900 ...	9093	232	137	32	8046	233	102	26	3086	83	36	6	3278	88	24	5		
1901 ...	8612	255	111	38	7695	218	98	32	3061	69	39	8	3050	78	39	11		
1902 ...	8616	211	99	19	7712	227	96	37	2880	88	51	5	3074	77	36	11		
1903 ...	8760	257	103	24	7860	230	89	25	2900	68	36	10	3130	70	32	9		
Averages of Years 1894 to 1904.	8686	260	127	31	7857	269	121	39	3030	81	42	10	2932	81	35	8		
1904 ...	9060	220	137	20	8010	198	95	24	2940	89	39	10	3165	81	42	7		

TABLE III.

Cases of Infectious Disease notified during the Year 1904.

NOTIFIABLE DISEASE.	CASES NOTIFIED IN WHOLE DISTRICT.							TOTAL CASES NOTIFIED IN EACH LOCALITY.						NUMBER OF CASES REMOVED TO HOSPITAL FROM EACH LOCALITY.						
	At all Ages.	AT AGES—YEARS.						WEAVERHAM. 1	NORTHWICH. 2	OVER. 3	MIDDLEWICH. 4	5	6	WEAVERHAM. 1	NORTHWICH. 2	OVER. 3	MIDDLEWICH. 4	5	FOR QUARANTINE. 6	NORTHWICH. URBAN DISTRICT. 7
		Under 1.	1 to 5.	5 to 15.	15 to 25.	25 to 65.	65 and upwards.													
Small-pox	12	2	...	1	...	7	2	12	...	...	...	...	...	12	...	...	...	...	3	1
Cholera .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Diphtheria	47	...	10	23	7	7	...	28	9	1	9	...	...	9	3	...	1	...	...	...
Membranous croup	1	...	1	...	...	...	...	...	1	...	...	...	...	...	...	...	...	...	...	...
Erysipelas	22	...	...	2	2	17	1	12	2	4	4	...	...	...	...	...	...	...	...	...
Scarlet fever.....	87	2	18	57	6	4	...	70	4	13	...	...	...	21	...	2	...	...	...	...
Typhus fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Enteric fever	12	...	...	2	1	9	...	11	...	...	1	...	...	...	...	...	...	...	...	...
Relapsing fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Continued fever .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Puerperal fever	6	...	...	...	3	3	...	3	1	1	1	...	...	...	...	...	...	...	...	...
Plague .....	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...
Totals	187	4	29	85	19	47	3	136	17	19	15	...	...	42	3	2	1	...	3	1

Isolation Hospital—Marbury.

TABLE IV.

Causes of, and Ages at, Death during the Year 1904.

CAUSES OF DEATH.	DEATHS IN WHOLE DISTRICT AT SUBJOINED AGES.							DEATHS IN LOCALITIES (AT ALL AGES).						DEATHS IN PUBLIC INSTITUTIONS.
	All Ages.	Under 1.	1 and under 5.	5 and under 15.	15 and under 25.	25 and under 65.	65 and upwards.	WEAVERHAM.	NORTHWICH.	OVER.	MIDDLEWICH.	INFECTIOUS DISEASE HOSPITAL.	MILITARY CAMP.	
Small-pox	2	1	..	..	..	1	..	2	..	..	..	..	..	2
Measles	19	8	11	..	..	..	..	7	9	1	2	..	..	..
Scarlet fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Whooping-cough	2	2	..	..	..	..	..	..	2	..	..	..	..	..
Diphtheria and mem- branous croup	2	..	..	2	..	..	..	1	..	..	1	..	..	1
Croup	1	..	1	..	..	..	..	..	..	1	..	..	..	..
Fever { Typhus .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
{ Enteric	5	..	..	..	2	3	..	4	..	..	1	..	..	..
{ Other continued.	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Epidemic Influenza	1	..	..	..	..	..	1	..	1	..	..	..	..	..
Cholera .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Plague .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Diarrhœa.....	4	2	1	1	..	..	..	2	1	..	1	..	..	..
Enteritis .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Puerperal fever .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Erysipelas .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Other sceptic diseases .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Phthisis	11	..	1	1	..	8	1	3	6	1	1	..	..	..
Other tubercular diseases..	7	1	1	1	1	3	..	4	2	1	..	..	..	..
Cancer, malignant disease.	12	..	1	..	..	7	4	3	4	1	4	..	..	..
Bronchitis	17	5	5	1	..	..	6	7	2	5	3	..	..	..
Pneumonia	24	5	4	4	..	6	5	12	9	3	..	..	..	..
Pleurisy	1	..	..	..	..	1	..	1	..	..	..	..	..	..
Other diseases of respira- tory organs .....	..	..	..	..	..	..	..	..	..	..	..	..	..	..
Alcoholism—Cirrhosis of liver	2	..	..	..	..	2	..	2	..	..	..	..	..	..
Venereal diseases	1	1	..	..	..	..	..	1	..	..	..	..	..	..
Premature birth.....	12	12	..	..	..	..	..	2	2	3	5	..	..	..
Diseases and accidents of Parturition	3	..	..	..	1	2	..	2	..	..	1	..	..	..
Heart diseases	37	..	..	3	3	15	16	10	17	7	3	..	..	..
Accidents.....	15	2	2	3	1	4	3	6	7	..	2	..	..	..
Suicides	3	..	..	..	..	1	2	..	1	..	2	..	..	..
Old Age	36	..	..	..	..	..	36	25	6	3	2	..	..	..
Convulsions	14	6	8	..	..	..	..	5	5	1	3	..	..	..
Marasmus	4	4	..	..	..	..	..	1	3	..	..	..	..	..
All other causes	78	12	6	1	2	33	24	37	18	12	11	..	..	..
All causes	313	61	41	17	10	86	98	137	95	39	42	..	..	3

SUPPLEMENTARY TABLE I.—BIRTHS.

Rural Sanitary District of	1st QUARTER.				2nd QUARTER.				3rd QUARTER.				4th QUARTER.				TOTALS FOR YEAR.			
	M	F	Tot'l	Rate	M	F	Tot'l	Rate	M	F	Tot'l	Rate	M	F	Tot'l	Rate	M	F	Tot'l	Rate
Weaverham	22	25	47		32	39	71		16	27	43		26	33	59		96	124	220	24.2
Northwich	24	28	52		28	25	53		23	23	46		24	23	47		99	99	198	23.4
Over	13	18	31		11	7	18		12	8	20		10	10	20		46	43	89	30.2
Middlewich	13	10	23		6	10	16		12	11	23		9	10	19		40	41	81	25.6
Totals for Quarters...	72	81	153	26.4	77	81	158	27.2	63	69	132	22.7	69	76	145	25.0	281	307	588	25.3
Births of Illegitimate Children	W. 2 M. 6 { N. 4 { 1 M. 3 F.				O. 2 F.				W. { 1 M. 1 F. N. { 1 M. 2 F. O. 2 M.				W. 2 { 1 M. 1 F. N. 1 M.				W. 6 { 4 F. N. 8 { 3 M. O. 4 { 5 F. 2 M. 2 F. Illegitimate Birth Rate==77 per 1000.			

SUPPLEMENTARY TABLE II.—DEATHS.

	1st Quarter.		2nd Quarter.		3rd Quarter.		4th Quarter.		Totals for Year.	Rate.
	No.	Rate.	No.	Rate.	No.	Rate.	No.	Rate.		
Weaverham	22	9.7	42	18.5	30	12.1	43	17.8	137	14.0
Northwich	21	10.4	15	7.4	22	10.9	37	18.4	95	11.8
Over	13	17.6	10	13.6	6	8.1	10	13.6	39	13.2
Middlewich	13	16.5	5	6.3	12	12.0	12	12.0	42	13.0
Whole District..	69	11.9	72	12.4	70	12.0	102	17.6	313	13.5

SUPPLEMENTARY TABLE III.—INFANTILE DEATHS.

Shewing Numbers in each District during each Month and Quarter,
with the Death Rates for each District and each Quarter.

	1st Quarter.			2nd Quarter.			3rd Quarter.			4th Quarter			Whole Year.	
	January	February	March	April	May	June	July	August	September	October	November	December	No.	Rate per 1000 Births registered
Weaverham	0	1	1	1	3	4	3	1	0	1	3	2	20	95
Northwich.....	2	3	1	1	2	0	1	2	1	1	3	7	24	120
Over	2	1	3	0	2	0	0	0	0	1	1	0	10	112
Middlewich	3	0	0	1	0	0	0	1	0	1	0	1	7	86
Whole District {	No.	17	14	9	21	61	103							
	Rate per 1000 of Population	2'9	2'4	1'1	3'6	2'6	—							
Number under 6 months of age at time of death. }	14	11	6	10	41	—								
Illegitimate Deaths }	No.	0	1	0	1	2	—							

Factories, Workshops, Laundries, Workplaces and Homework.

1.—INSPECTION.

Including Inspections made by Sanitary Inspectors or Inspectors of Nuisances.

Premises.	Number of		
	Inspections.	Written Notices.	Prosecutions.
Factories (Including Factory Laundries).	..	..	..
Workshops (Including Workshop Laundries).	105	..	..
Workplaces .. .. .	..	..	..
Homeworkers' Premises .. .. .	..	..	..
Total	105	..	..

2.—DEFECTS FOUND.

Particulars.	Number of Defects.			Number of Prosecutions.
	Found.	Remedied.	Referred to H.M. Inspector.	
<i>Nuisances under the Public Health Acts :*</i>				
Want of cleanliness	3	3	..	..
Want of ventilation	5	5	..	..
Overcrowding .. .. .	..	..	..	..
Want of drainage of floors	5	5	..	..
Other nuisances .. .. .	..	..	..	..
†Sanitary Accommodations {	insufficient	3	3	..
	unsuitable or defective ..	3	3	..
	not separate for sexes ..	..	..	..
<i>Offences under the Factory and Workshop Act :</i>				
Illegal occupation of underground bake-house (S. 101) .. .. .	..	..	..	..
Breach of special sanitary requirements for bakehouses (SS. 97 to 100). ..	..	..	..	..
Failure as regard lists of outworkers (S. 107)	..	..	..	..
Giving out work to { unwholesome (S. 101)	..	..	..	..
be done in premises { infected (S. 110) ..	..	..	..	..
which are				
Allowing wearing apparel to be made in premises infected by scarlet fever or smallpox (S. 109) .. .. .	..	..	..	..
Other offences .. .. .	..	..	..	..
Total	19	19	..	..

*Including those specified in Sections 2, 3, 7 and 8, of the Factory Act as remediable under the Public Health Acts.

†For districts not in London state here whether Section 22 of the Public Health Acts Amendment Act, 1890, has been adopted by the District Council; and if so, what standard of sufficiency and suitability of sanitary accommodation for persons employed in factories and workshops has been enforced.

Class.										Number.	
Matters notified to H.M. Inspector of Factories :											
Failure to affix Abstract of the Factory and Workshops Act (S. 133) .. .. .										....
Action taken in matters referred by H.M. Inspectors as remediable under the Public Health Acts, but not under the Factory Act (S. 5) {										Notified by H.M. Inspector ..	
										Reports (of action taken) sent to H.M. Inspectors ..	
Other .. .. .										....
Underground Bakehouses (S. 101) :											
In use during 1903										1	
Certificates granted { in 1903 .. .. .										....
{ in 1904										1	
In use at the end of 1904										1	
										Number of	
Homework :											
<i>Lists of Outworkers*</i> (S. 107) :										Lists. Out-workers.	
Lists received .. .. .										.. ..
Addresses of Outworkers { forwarded to other Authorities ..										....
{ received from other Authorities ..										....
<i>Homework in unwholesome or infected premises :</i>										Wearing Apparel. Other.	
Notices prohibiting homework in unwholesome premises (S. 108)										.. ..
Cases of Infectious disease notified in homeworkers' premises..										.. ..
Orders prohibiting homework in infected premises (S. 110) ..										.. ..
Workshops on the Register (S. 131) at the end of 1904 :											
Important classes of workshops, such as workshop bakehouses, may be enumerated here. { .. .. .										....
Total number of workshops on Register										123	

* The Lists should be received twice in the year. The year's figures required in the Table are then obtained by adding together the two half-yearly totals.

